

BELMOND SOLID WASTE DUMP

(Simpson Property)

(Belmond, Iowa)

GENERAL DESCRIPTION

The site is located adjacent to the Iowa River on the north side of Belmond, Iowa. It is on land generally described as the SE 1/4 of the NW 1/4 of the NW 1/4 of Section 19, T92N, R23W, Wright County, Iowa. Mr. and Mrs. George Simpson are the owners of record. The land previously was owned by the city of Belmond and used as a city dump. The site was entered on the Registry in 1984.

SITE CLASSIFICATION

In 2001 the classification of this site is revised to “d”. Site Properly Closed, Requires Continued Management.

TYPE AND QUANTITY OF HAZARDOUS WASTE

In October 1966 a tornado caused extensive damage to the city of Belmond. As part of the town cleanup, about 80 tons of pesticides, all in granular or powdered form, were disposed at the site.

This disposal was conducted by Armour Agriculture Chemical Company, under the supervision of the Iowa Department of Agriculture. A trench was excavated about eight feet below existing grade for the pesticide wastes. The trench was about four feet wide at the bottom and twelve feet wide at the top. The site was used until 1976 for the disposal of solid waste. The site soils are generally sands and gravels with localized clay units. Under a search warrant in October 1983, soil samples were obtained from the site. Dieldrin, aldrin, and parathion were detected in all samples. Knox weed, 2,4-D, EPTAM, DDT, and heptachlor were identified in some of the soil samples.

The groundwater is between 10 and 20 feet below the surface. This surficial aquifer appears to be hydraulically connected to the Iowa River. In 1983 several private and public wells around the site were tested for contaminants. The results were negative for all contaminants expected at the site. Some of these wells were sampled again in 1985 and all results were normal. However, trans-1,2-dichloroethene was observed at low levels in spring water south of the site. The relationship of this contaminant to the site is unknown.

An emergency administrative order was issued to the site owners and the city of Belmond in August 1984. The order required submission of a plan of study to determine the extent of contamination, identify groundwater movement, and propose a plan of remedial action. This order was appealed and the hearing officer's decision ruled in favor of the appellants.

During September 1986 the EPA performed a Site Investigation. Four monitoring wells were installed and five soil borings were drilled around or on the site. Surface water and surface sediment samples were collected upgradient and downgradient from the site. Groundwater samples were collected from nearby shallow drinking water wells and from the four monitoring wells. The water samples showed no contamination above background levels. Several soil/sediment samples contained contaminants above background values. The pesticides aldrin (31 ppb) and dieldrin (12 ppb) were found in the soil sample 8.5 feet north of the pesticide disposal trench.

The Final Health Assessment for the site was completed in November 1991.

SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

There is no evidence at present that human exposure is occurring from the site. The site could pose a future health concern if human activity disrupts the integrity of the disposal area or if there is migration of pesticides through groundwater to potable water wells.

SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS

The EPA was the lead agency from the 1986 investigation through the Final Health Assessment in 1991. The health assessment recommended periodically sampling on-site groundwater monitoring wells for pesticides and verifying the direction of groundwater flow at the waste site. The EPA has referred the site back to state authority for further action. An assessment was conducted by EPA and it was determined that a removal action was not warranted.

2005: The IDNR conducted a sampling event. No significant contamination was detected.